

Status report

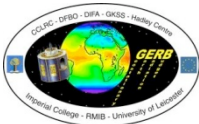
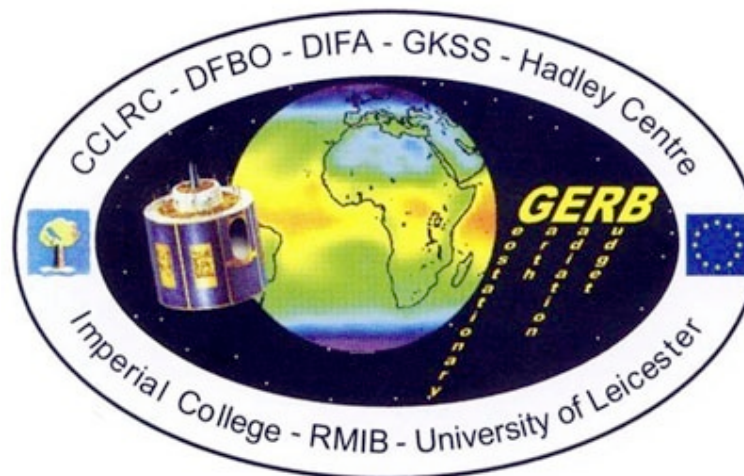
GERB activities

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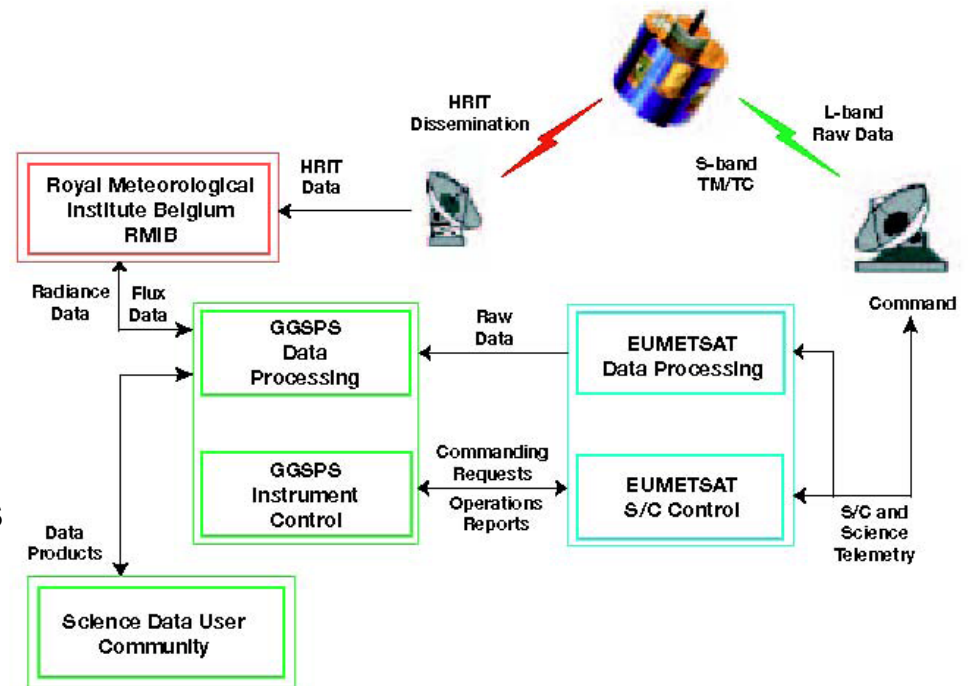
RGP Overview

Inputs

- GERB level 1.5 from RAL
- SEVIRI level 1.5 from EUM

Processings

- LW separation
 - Unfiltering
 - Scene identification
 - ADMs
 - Various spatial and temp. processings
- combining GERB and SEVIRI
- tuning of the geolocation
 - resolution enhancement
 - PSF correction



Outputs

- Level 2 solar and thermal fluxes at TOA
- 3 formats:
 - ARG: Averaged Rectified Geolocated (45km, 17', no correction of PSF)
 - BARG : Binned Averaged Rectified Geol. (45km, 15', PSF corrected)
 - HR : High Resolution (9km, 15', PSF corrected)

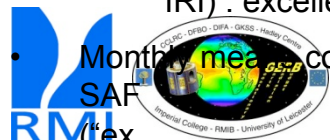
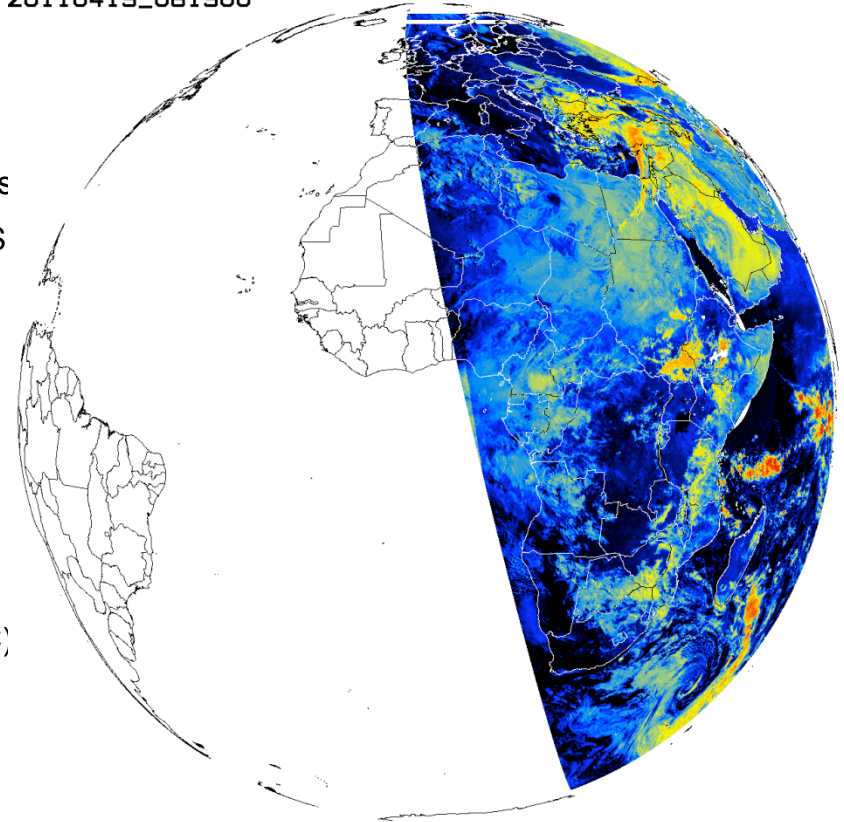
Status: Near real time GERB/GERB-like processing

- Version V006 of the software in operation since 23 october 2009, similar processing to Edition-1 but without the quality checks
- NRT data distributed via our FTP server (last 40 days) ROLSS

<ftp://gerb.oma.be>

- Users must register first
- NRT processing is done in coordination with RAL
- NRT data availability (last year):
 - GERB: good except
brian
nual Sun Avoidance Seasons (data only during 2-7 UTC)
 - 14 Feb. to 24 April
 - 19 Aug. to 29 Oct.
 - GERB-like
(SE
V
IRI) : excellent (no decontamination and no MSG failure!)

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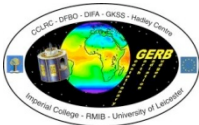


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- Monthly mean computed for the Climate Monitoring SAF ("express product", not climate quality dataset) <http://www.cmsaf.eu>

Status: GERB Archive

- GERB-2 (Meteosat-8) : Edition-1 from 1st Feb. 2004 to 30 April 2007
- GERB-1 (Meteosat-9) : **Edition-1** from 1st May 2007 to 31 Dec. 2009 (released 28Feb)
- GERB-1 : from 1 Jan. 2010 – present day : V006, quality check ongoing, will be added to the Edition-1 archive soon
- **Note** : reprocessed calibration for GERB-2 SW channel
 - All users of GERB 2 (METEOSAT-8) radiation data are advised to multiply all solar (SW) radiances and fluxes by a factor of 0.976. Data so treated should be referred to as "SW cal update".
 - This update applies to the full GERB 2 data record and is a consequence of updated calibration being provided for the ground source standard against which the GERB 2 instrument is calibrated.

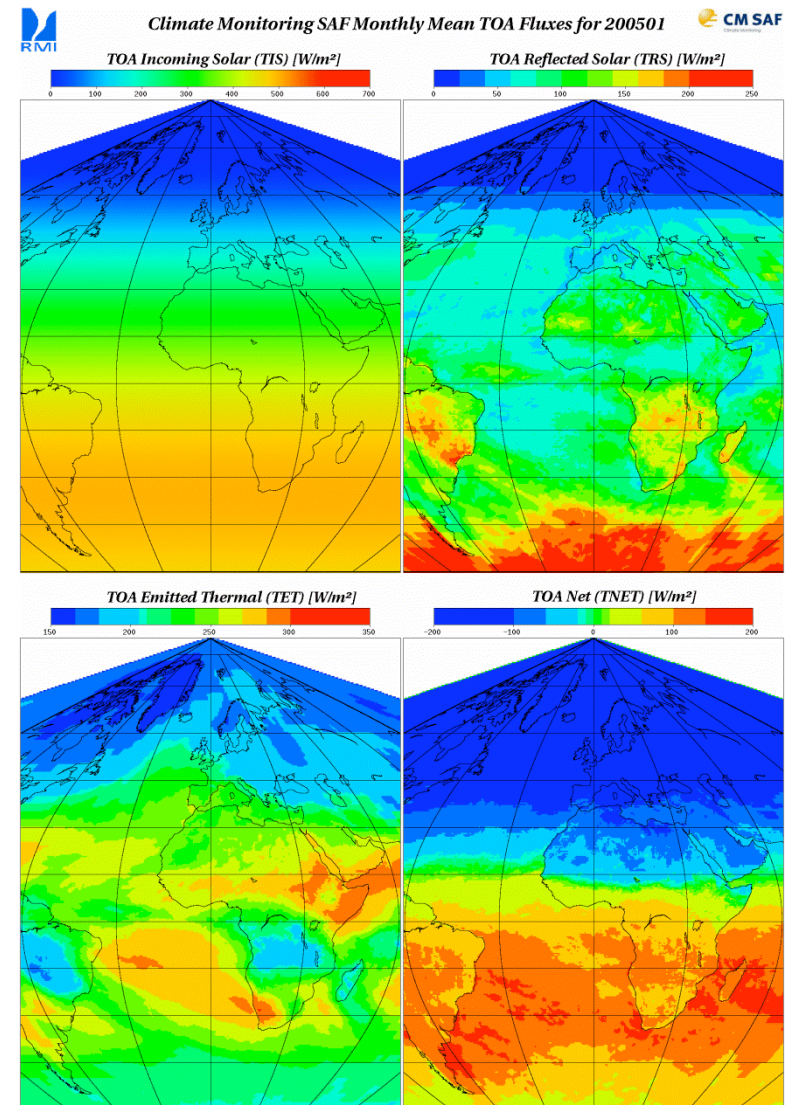


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GERB Monthly Means Products

- Derived within the CM SAF project: monthly mean, daily mean, monthly mean diurnal cycle.
- Allsky only, plans for clear sky
- NRT “express products” generated since 2004 (see picture)
- Dataset (under review):
 - Homogenize GERB-2 and GERB-1
 - Provide data during the SAS (based on empirical NB-to-BB)
 - Accuracy table

	Decadal stability (dataset stability)		RMS GERB-like		RMS CERES	
	TRS	TET	TRS	TET	TRS	TET
Threshold	5%/dec	2%/dec	5W/m ²	5W/ m ²	10W/m ²	5W/m ²
Target	2%/dec	1%/dec	2W/m ²	2W/m ²	5W/m ²	2W/m ²
Optimal	1%/dec	0.5%/dec	1W/m ²	1W/m ²	2.5W/m ²	1W/m ²
Values for the prereleased dataset	+/- 5 %	<1%	1.5W/m ²	2W/m ²	9.5 W/m ²	4.0 W/m ²



GERB aging?

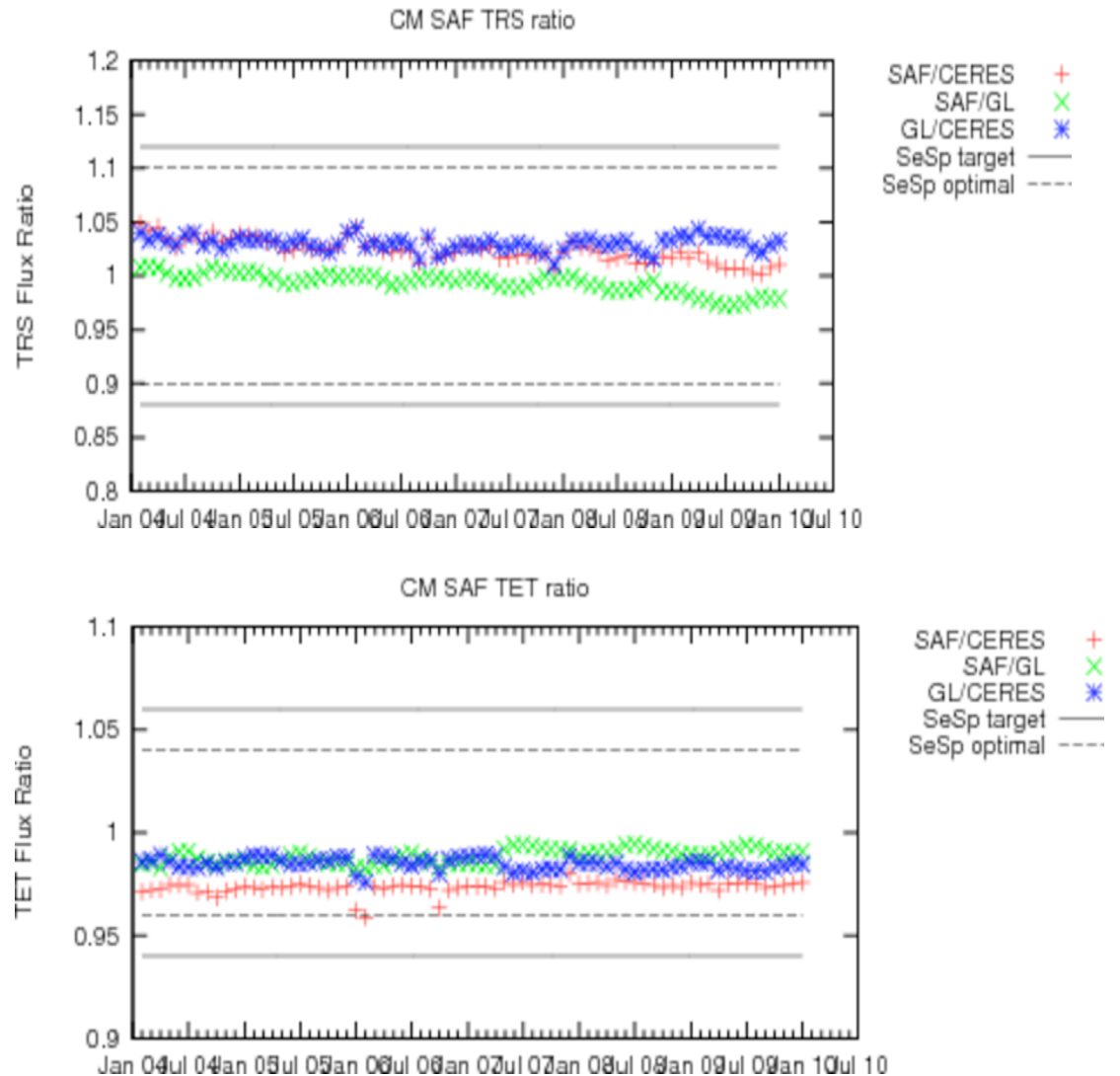
Comparisons with CERES and SEVIRI indicate slow decrease of the GERB-2 and -1 SW channel.

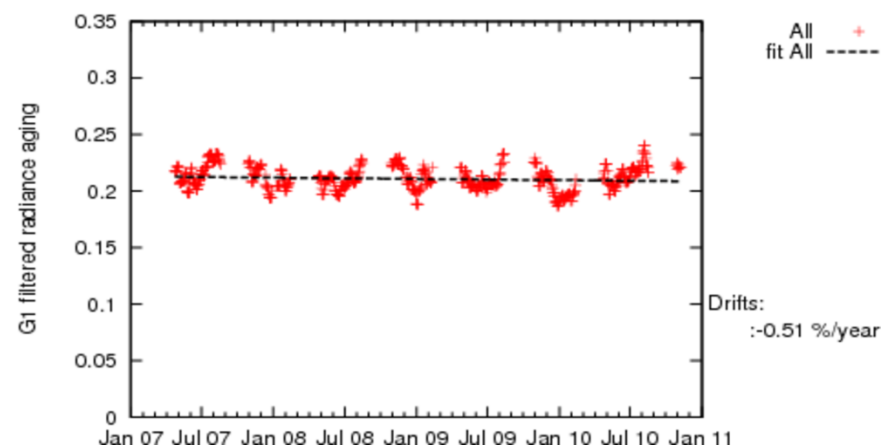
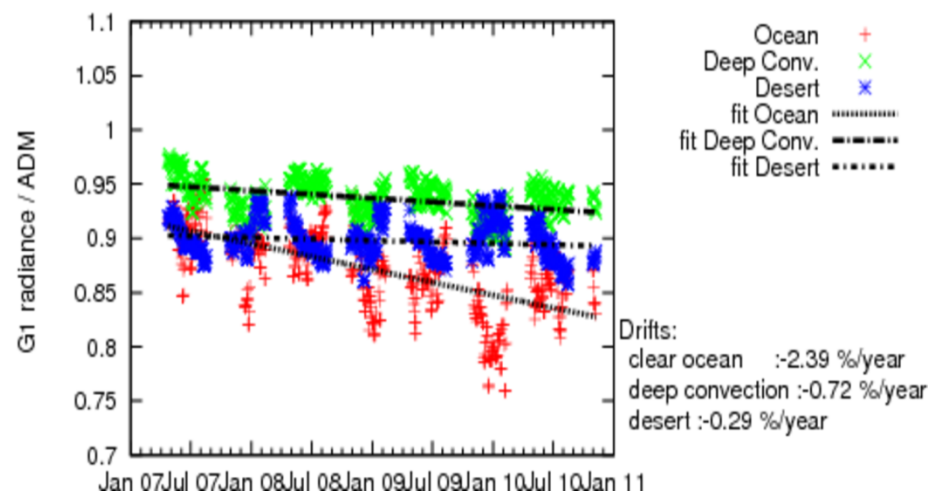
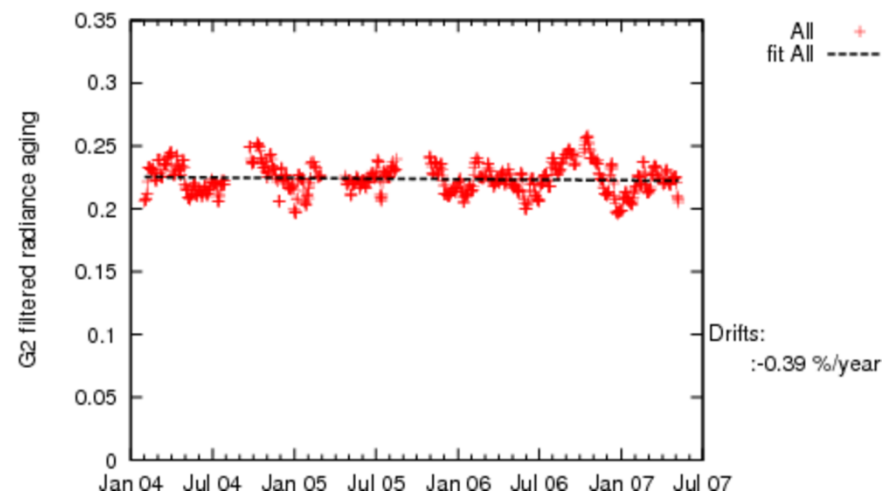
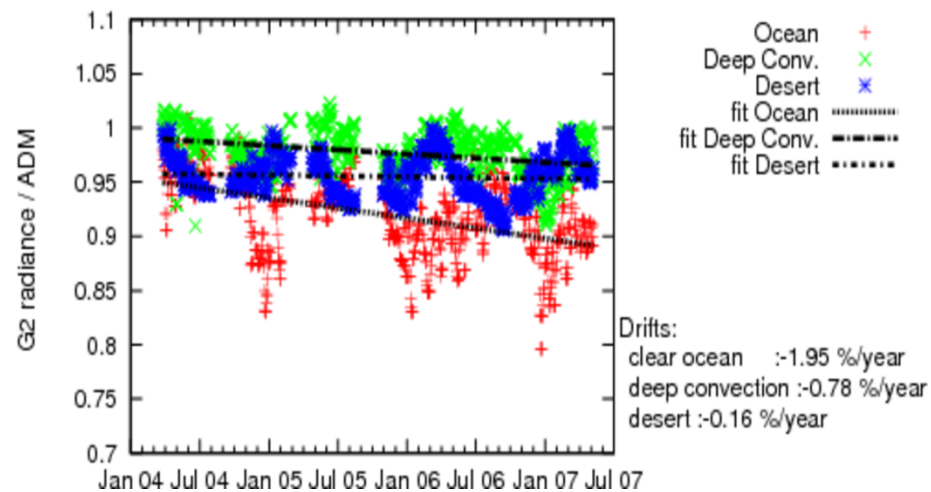
Could be something like $\pm 0.5\%$ /year all sky

Higher for clear ocean

Lower for clear desert

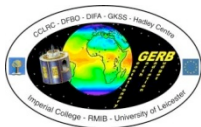
Investigations are on-going





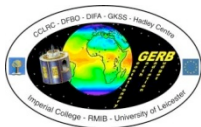
Highlights

- Edition-1 of GERB-1 data released on 28th Feb. 2011
- Validation results for GERB 1 and advice on the appropriate use of the data are available in the updated quality summary for the data provided on the data servers :
 - <http://gerb.oma.be> (all format ARG, BARG, HR) (Feb 04-Dec 09)
 - <http://badc.nerc.ac.uk/data/gerb> (ARG only) (May 04- Dec 09)
 - <http://ggsps.rl.ac.uk> (ARG only) (May 04-Aug 09)
- Quality summary includes:
 - GERB1/CERES (from Nicolas at RMIB) and GERB1/GERB2 comparisons (from Richard at Imperial)
 - GERB2/CERES comparisons updated and to be included in the GERB 2 calibration update
 - RMIB has provided new GERB2/CERES comparisons for 2007 (c.f the original 2004 comparisons)



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- Part of the jump between GERB-2 and GERB-1 SW level explained. New calibration available for GERB-2.
- GERB-3 and -4 to be launched on meteosat-10 (launch June 2012?) and -11 (launch Jan. 2014 ?). No relocation over the indian ocean foreseen.



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